## REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Entry of the amendments is proper under 37 CFR §1.116, because the amendments place the application in condition for allowance, and do not raise any new issue requiring further search and/or consideration. The amendments are necessary and were not earlier presented, because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

Claims 1-15, 17, 18, 20-22, 26, 27 and 30-35 were pending in this application when examined. Non-elected claims 1-12 were withdrawn from consideration.

Claims 1, 6-8, 13-15, 20-22 and 30-35 have been amended to delete the "modification" of the α-1,4-glucan, and claims 13-15, 20, 21 and 30-35 have been amended to delete "or a combination thereof". As a result, claim 5 has been cancelled

Claim 13 has also been amended to replace "comprising" with the transitional phrase "consisting essentially of", and to delete "the modification of the α-1,4-glucans is a chemical modification selected from the group consisting of esterification, etherification and crosslinking".

Claims 18 has been amended to depend from claim 13, because claim 16 has been cancelled.

### I. Claim Rejections Under 35 U.S.C. § 112

The Examiner rejects claim 18 under 35 U.S.C. § 112, second paragraph, as being indefinite, because claim 18 depends from cancelled claim 16. Claim 18 has been amended to depend from claim 13, thereby rendering this rejection moot.

The Examiner rejects claims 13-15, 17, 18, 20-22, 26, 27 and 30-35 under 35 U.S.C. § 112, second paragraph, as being indefinite for the recitation of "or its modification". The claims have been amended to delete this feature, thereby rendering this rejection moot.

### II. Claim Rejection Under 35 U.S.C. § 103

The Examiner rejects claims 13-15, 17, 18, 20-22, 26, 27 and 30-35 under 35 U.S.C. § 103(a) as being unpatentable over Hausmanns (WO 02/102355) in view of Bengs et al. (WO 01/85836) as evidenced by IUPAC Gold Book. As applied to the amended claims, Applicants respectfully traverse the rejection.

The present invention provides a molded article from α-1,4-glucan. A high molecular weight α-1,4-glucan is combined with a low molecular weight α-1,4-glucan to make it possible to easily form a gelled article. The molded article of the present invention also has excellent biodegradability. The cited references do not teach or suggest a combination of high molecular weight α-1,4-glucan and low molecular weight α-1,4-glucan.

As discussed in the previous response, Hausmanns discloses a molded article from poly(1,4-α-D-glucan) and **starch** (see Abstract). The poly(1,4-α-D-glucan) has a degree of polymerization between 40 to 300, which corresponds to the low molecular weight α-1,4-glucan of the present invention. Hausmanns suggests that the poly(1,4-D-glucan) is combined with starch, but does not teach or suggset that the poly(1,4-α-D-glucan) is combined with high molecular weight α-1,4-glucan.

The reference discloses producing a molded article wherein the poly(1,4-α-D-glucan) is combined with Amyloplast PE 004 potato starch (see Example 1 of Hausmanns). The Amyloplast potato starch (20 % unbranched amylase) has a degree of polymerization of 4,000. The Examiner considers that the potato starch corresponds to the high molecular weight α-1,4-glucan of the present invention.

However, the potato starch of Hausmanns is clearly different from the high molecular weight α-1,4-glucan of the present invention. The α-1,4-glucan of the present invention is defined in paragraph [0045] of the present specification as at least two saccharide units linked by an α-1,4-glucoside bond and straight chain glucan. **The potato starch of Hausmanns contains about 80 % amylopectin** (see page 18, Example 1 of Hausmanns). Amylopectin is a macromolecule material of α-glucose, which is bonded with an α-1,4 bond and α-1,6 bond, and thus is a branched molecule. The potato starch of Hausmanns is therefore not the same as, nor does it suggest, the high molecular weight α-1,4-glucan of the present invention.

Bengs et al. disclose a gel which comprises poly-α-1,4-D-glucan and starch (see abstract). Starch, as mentioned above, is clearly different from the α-1,4-glucan of the present invention, which does not have any branched structure. Starch should have a branched structure.

Furthermore, claim 13 has been amended to recite the transitional phrase "**consisting essentially of**". Thus, the molded article in claim 13 excludes the incorporation of branched polysaccharides, such as amylopectin. As a result, the potato starch of Hausmanns is further distinguished from the high molecular weight α-1,4-glucan of the present invention.

Therefore, Applicants take the position that the presently claimed invention would not have been obvious over the references.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

## III. Conclusion

For these reasons, Applicants take the position that the presently claimed invention is clearly patentable over the applied references.

Therefore, in view of the foregoing amendments and remarks, it is submitted that the rejections set forth by the Examiner have been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

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